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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,306	11/12/2003	Rino Micheloni	02-AG-149	5765
23334	7590	02/10/2005	EXAMINER	
FLEIT, KAIN, GIBBONS, GUTMAN, BONGINI & BIANCO P.L. ONE BOCA COMMERCE CENTER 551 NORTHWEST 77TH STREET, SUITE 111 BOCA RATON, FL 33487			AUDUONG, GENE NGHIA	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/706,306

Applicant(s)

MICHELONI ET AL.

Examiner

Gene N. Auduong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (U.S. Pat. No. 6,539,461).

Regarding claim 1, Suzuki et al. disclose a circuit for programming a non-volatile memory device having a plurality of memory cells (semiconductor storage system 20 as stated in figure 1 having plurality of memory cells), the circuit including a plurality of driving elements each one for applying a program pulse to a selected memory cell to be programmed (driving elements such as wordline driver, column driver, etc.), the plurality of driving elements being suitable to be supplied by a power supply unit (control signals that activate the driver in each of the circuit is to be supply by the power supply), and control means for controlling the plurality of driving elements, wherein the control means includes means for determining a residual capacity of the power supply unit, and selecting means for selectively enabling the driving elements according to the residual capacity (col. 1, lines 23-27; col. 4, lines 10+).

Regarding claim 2, Suzuki et al. disclose the circuit according to claim 1, wherein the selecting means enables at least one driving element in succession during a program step of the selected memory cells, the selecting means further including means for disabling each driving element after a predetermined delay from the enabling of the driving element, the delay corresponding to the length of the program pulse, and wherein the control means further includes means for signaling a completion of the program step when all of the driving elements of the enabled at least one driving element have been disabled (col. 4, lines 10+).

Regarding claims 3-5, Suzuki et al. disclose the circuit according to claim 2, wherein the driving elements are grouped into a plurality of subsets each one consisting of a predetermined number of driving elements, the selecting means including means for providing an enabling signal when the power supply unit is in a condition to supply the driving elements of a further subset; wherein the selecting means further includes means responsive to the enabling signal for individually enabling the subsets in succession (driving element are grouped into plurality of group such as disk group 1 and disk group 2 as stated in figure 2; col. 4, lines 25+).

Regarding claim 6, Suzuki et al. disclose the circuit according to claim 4, wherein the selecting means further includes means for providing a disabling signal after the predetermined delay from the provision of the enabling signal, means responsive to the disabling signal for disabling the subset enabled by the corresponding enabling signal, and means for providing a signal indicative of the completion of the program step in response to the disabling signal corresponding to a last one of the subsets (col. 4, lines 10+).

Regarding claims 7-13, Suzuki et al. disclose the circuit according to claim 1, wherein the driving elements are grouped into a plurality of subsets each one consisting of a predetermined

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number of driving elements, the selecting means including means for providing an enabling signal when the power supply unit is in a condition to supply the driving elements of a further subset; wherein the selecting means further includes means responsive to the enabling signal for individually enabling the subsets in succession; wherein the selecting means further includes means responsive to a first enabling signal at the beginning of the program step for enabling a predetermined plurality of subsets, and means responsive to each next enabling signal for individually enabling the remaining subsets in succession; wherein the selecting means further includes means for providing a disabling signal after the predetermined delay from the provision of the enabling signal, means responsive to the disabling signal for disabling the subset enabled by the corresponding enabling signal, and means for providing a signal indicative of the completion of the program step in response to the disabling signal corresponding to a last one of the subsets (driving element are grouped into plurality of group such as disk group 1 and disk group 2 as stated in figure 2; col. 4, lines 25+).

Claims 14-18 contain the similar limitation as previously discussed in claims 1-13.

Therefore, they are analyzed as previously discussed with respect to claims 1-13.

Regarding claims 19-24, the apparatus as previously discussed in claims 1-13 and 14-18 would be performed the method as claimed. Therefore, they are analyzed as previously discussed with respect to apparatus claims 1-13 and 14-18.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N. Auduong whose telephone number is (571) 272-1773. The examiner can normally be reached on 9-5-4, alternate second Monday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA  
January 25, 2005



Gene N. Auduong  
Primary Examiner  
Art Unit 2827